

**State of California
AIR RESOURCES BOARD**

EXECUTIVE ORDER G-07-066

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code, Division 26, Part 5, Chapter 1 and 2; and pursuant to the authority vested in the undersigned by Health and Safety Code section 39515 and 39616 and Executive Order G-02-003;

Relating to Verification under Sections 2780 through 2789 of Title 13 of the California Code of Regulations

Engine Control Systems Limited
TermiNOxTM

The Air Resources Board (ARB) has reviewed Engine Control Systems Limited request for extension of a verification of the TermiNOxTM. Based on an evaluation of the data provided and pursuant to the terms and conditions specified below, ARB hereby finds that the TermiNOxTM reduces emissions to 3.0 g/bhp-hr (4.0 g/kW-hr) of NOx + HC consistent with a level 2 emission control system for engines greater than 3.0 liters (L). (Title 13 California Code of Regulations (CCR) Sections 2782 and Section 2783). Accordingly, the Executive Officer determines that the system merits verification and, subject to the conditions specified below, classifies the TermiNOxTM as a Level 2 system (3.0 g/bhp-hr (4.0 g/kW-hr)) for use on unregulated off-road LSI engines greater than 3.0 L but less than or equal to 8.2 L, of all model years 1990 to 2001 and non-complying phase-in engines model years 2001 through 2003.

IT IS ORDERED AND RESOLVED: The aforementioned verification is valid provided the engines meet the following criteria:

- The engine is greater than 3.0 L but less than or equal to 8.2 L
- The engine is four stroke and naturally aspirated and uses propane fuel
- The engine must not have a pre-existing closed loop 3-way catalyst system
- The engine must have an open loop Impco, Nolf, Aisan or Nikki fuel system
- The engine must not have any signs of excessive oil consumption
- The engine has a variable speed duty cycle
- The installation must be consistent with the specifications listed in the installation/operation manual shown in the verification application

IT IS ALSO ORDERED AND RESOLVED: TermiNOxTM manufactured by Engine Control Systems Limited at 165 pony Drive, Newmarket, Ontario, Canada L3Y 7V1, is a system consisting of a three-way catalyst contained in a converter or converter muffler and a closed loop fuel management kit consisting of a fuel actuator, oxygen sensor and electronic control module. All necessary hardware and controls are installed on the vehicle. The components and catalyst sizing chart for the TermiNOxTM system are identified in Attachment 1.

This Executive Order is valid provided that installation instructions for TerminiNOx™ do not recommend tuning the engines to specifications different from the engine manufacturers' recommendation.

No changes to the design or operating conditions are permitted to the device. The ARB must be notified in writing of any changes to any part of the TerminiNOx™. Any changes to the device must be evaluated and approved by the ARB. Failure to do so shall invalidate this Executive Order.

Marketing of the TerminiNOx™ using identification other than that shown in this Executive Order or for an application other than that listed in this Executive Order shall be prohibited unless prior approval is obtained from the ARB.

This Executive Order shall not apply to any TerminiNOx™ advertised, offered for sale, sold with, or installed on off-road equipment prior to or concurrent with transfer to an ultimate purchaser.

As specified in the Verification Procedure (Title 13 CCR Section 2786 (c)), ARB assigns an Emission Control Group (ECG) name to be included on the labels which are to be permanently affixed to the emission control system and the engine. The ECG name is:

CA/2007/ECS/LL2/NH3.0/OFF/SYS01

Additionally, as stated in the Verification Procedure, Engine Control Systems Limited is responsible for honoring a warranty (Section 2787) and conducting in-use compliance testing (Section 2789).

In addition to the foregoing, the ARB reserves the right in the future to review this Executive Order and verification provided herein to assure that the verified add-on or modified part continues to meet the standards and procedures of California Code of Regulations, Title 13, Section 2222, et seq and California Code of Regulations, Title 13, Sections 2780 through 2789.

Systems verified under this Executive Order shall conform to all applicable California emissions regulations.

Violation of any of the above conditions shall be grounds for revocation of this Executive Order.

Executed at El Monte, California, this 1st day of November 2007.

s/s

Robert H. Cross, Chief
Mobile Source Control Division

Attachment 1: TerminiNOx™ Parts List and Catalyst Sizing Chart